

Water Audit Level 1 Validation Document

Validator Provided

Audit Information:

Utility: Alameda County Water District

PWS ID: 0110001

System Type: Potable

Audit Period: Calendar 2019

Utility Representation: Devon Becker, Kelsi Oshiro, Martin Koran, Jonathan Wunderlich, Robert Ells, Juniet Rotter, Ed Stevenson, David Albrecht, Mike Wickham, Cynthia Ha, Thomas Niesar, Stephanie Nevins, Ariz Naqvi

Validation Date: 09/21/2020

Meeting Time: 1:00pm

Sufficient Supporting Documents Provided: Yes

Validation Findings & Confirmation Statement:

Key Audit Metrics:

Data Validity Score: 60

Data Validity Band (Level): Band III (51-70)

ILI: 1.68

Real Loss: 25.66 gallons/connection/day

Apparent Loss: 9.87 gallons/connection/day

Non-revenue water as percent of cost of operating system: 4.4%

Certification Statement by Validator:

This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34.

All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit.

Validator Information:

Water Audit Validator: Leonard Ash

Validator Qualifications: California Water Audit Validator Certification from CA-NV AWWA

Water Audit Level 1 Validation Document

Water System Name: Alameda County Water District **Water System ID Number:** CA0110001 **Water Audit Period:** Calendar 2019

Water Audit & Water Loss Improvement Steps:

Steps taken in preceding year to increase data validity, reduce real loss and apparent loss as informed by the annual validated water audit:

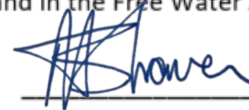
Alameda County Water District (ACWD) has improved on water loss audit data in the past year by newly formalizing a written policy on customer billing exemptions that was distributed agency-wide; accurately deducting billed consumption values for customers with outlined billing exemptions from the 'billed metered' volumes; accurately accounting for the 'unbilled metered' consumption volumes from customer accounts with outlined billing exemptions; adding estimates of Treatment Plant 2 solids processing water volumes, distribution system K point lab sampling volumes, and Hayward Intertie regulator preventative maintenance flushing volumes to the 'unbilled unmetered' volume calculation; developing a new report to more accurately generate the 'number of active and inactive service connections' by customer class from ACWD's Cayenta database and removing the 'HYD' customer class from the overall count as consistent with the AWWA M36 derivation criteria; incorporating an updated ArcGIS layer that included service connection locations through the end of CY2019 to calculate average system pressure according to AWWA M36 derivation criteria (previous Water Loss Audits used a layer last updated in 2015); assessing and formally documenting with ACWD Finance and Operations whether additional costs such as liability, residuals management, equipment wear, and impending infrastructure expansion should be included in the 'variable production cost' calculation; and adding residuals management (solids handling/transport) from Treatment Plant 2 into the 'variable production cost' calculation.

Certification Statement by Utility Executive:

This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34 and has been prepared in accordance with the method adopted by the American Water Works Association, as contained in their manual, *Water Audits and Loss Control Programs, Manual M36, Fourth Edition* and in the Free Water Audit Software version 5.

Robert Shaver

General Manager



09/28/2020

Executive Name (Print)

Executive Position

Signature

Date

Utility Provided